Received: 26 January 2023 | Accepted: 26 January 2023

DOI: 10.1111/jgs.18275

Journal of the
American Geriatrics Society

Care Delivery, Quality Measurement, and Quality Improvement in Nursing Homes: Issues and Recommendations from the National Academies' Report on the Quality of Care in Nursing Homes

Marilyn Rantz PhD, RN, FAAN[1] | **Mary Ersek PhD, RN**[2,3]

[1]Sinclair School of Nursing, University of Missouri, Columbia, Missouri, USA

[2]Center for Health Equity Research and Promotion, Corporal Michael J. Crescenz Veterans Affairs Medical Center, Philadelphia, Pennsylvania, USA

[3]Leonard Davis Institute and School of Nursing, University of Pennsylvania, Philadelphia, Pennsylvania, USA

Correspondence
Marilyn Rantz, PhD, RN, FAAN, Sinclair School of Nursing, University of Missouri, 2440 Shady Hills Lane, Rocheport, Columbia, MO 65279, USA.
Email: rantzm@missouri.edu

KEYWORDS: care delivery, end of life, long-term care, nursing homes, person-centered care

The National Academies of Sciences, Engineering, and Medicine (NASEM) Committee on the Quality of Care in Nursing Homes had a broad mandate: to examine how the United States "delivers, finances, measures, and regulates the quality of nursing home care" (National Academies of Sciences, Engineering, and Medicine, 2022, p. xvii). The resultant goals and associated recommendations encompass a broad array of strategies and actors needed to improve the quality of care. At their core are a vision and guiding principles that, if enacted, the Committee asserts will transform the day-to-day delivery of care: "nursing home residents receive care in a safe environment that honors their values and preferences, addresses goals of care, promotes equity, and assesses benefits and risks of care and treatments" (National Academies of Sciences, Engineering, and Medicine, 2022, p. 498i). Care delivery must be person centered: that is, care that meets the unique needs, goals, values, and preferences of residents.

Despite the long-standing expectation that the care provided to nursing home residents is holistic and focused on individual needs and preferences, the Committee found that, even prior to the coronavirus disease 2019 (COVID-19) pandemic, the quality of care in nursing homes was neither consistently comprehensive nor of high quality. Furthermore, the regulations that have been in place for 35 years have not been fully enforced. Failures in care delivery involve many aspects of care and have myriad causes. Some of these causes include inadequately prepared and compensated staff, high administrative and staff turnovers, a lack of health information technology to support care coordination, the complex psychosocial and medical needs of residents, and regulations that incentivize care that is not aligned with patients' or residents' goals and preferences.

Based on these findings, the Committee articulated seven overarching goals to improve the quality of nursing home care. This paper focuses on selected issues in care delivery, quality measurement, and quality improvement. We provide an overview of the goals and recommendations associated with these three areas. Then, we then suggest action steps for those working to improve and provide care and services to nursing home residents or other services to the nursing home industry. We conclude with implications for gerontological leaders, clinicians, and policy-makers.

PERSON-CENTERED CARE AND MODELS OF CARE DELIVERY

Goal 1 is to "deliver comprehensive, person-centered, equitable care that ensures residents' health, quality of life, and safety; promotes autonomy; and manages risks." The Committee "intentionally and strategically" placed this goal first "to serve as the foundation that subsequent recommendations build upon" (National Academies of Sciences, Engineering, and Medicine, 2022, p. 500). Person-centered care is a concept that has been promulgated for decades (Koren, 2010). Moreover, current statutory regulations require individualized care plans be designed, implemented, and evaluated for all residents. Nonetheless, there are significant shortcomings in achieving person-centered care that is aligned with residents' values, goals, and preferences.

A long-standing challenge, made worse by the COVID-19 pandemic, is striking a balance between honoring individual residents' autonomy and the need to keep residents safe. Personal autonomy is a central American value embodied in US Constitution, state, and federal laws, and emphasized in the Resident Bill of Rights (National Long-Term Care Ombudsman Resource Center, 2016). Nonetheless, honoring resident autonomy is particularly challenging when residents' preferences clash with best clinical practices, safety, or the rights of other residents (Calkins and Brush, 2016). For example, residents or their surrogates may choose to engage in or refuse activities and treatments that increase the risks of negative health outcomes. Other choices can infringe on the rights and safety of others: for example, refusal to be vaccinated. Regulations and infection control standards related to COVID-19 pushed nursing homes toward practices that favor safety over individuals' autonomy (Calkins et al., 2015; The National Consumer Voice for Quality Long-Term Care, 2021). Myriad reasons exist for this bias towards safety, including fear of survey citations and litigation, negative media coverage, a lack of training, and organizational cultures. For this reason, the Committee recommended that nursing homes "identify the care preferences of residents and their chosen families using structured, shared decision-making approaches that balance resident preferences for safety and autonomy."

Enacting this recommendation will require changes to policies and culture, as well as identification of best practices. Other recommendations made by the Committee (National Academies of Sciences, Engineering, and Medicine, 2022, p. 503)—to increase staffing, minimize turnover, and provide additional training—will also promote person-centered care. To specifically promote resident preferences that require negotiating risky choices, facilities will need to establish policies requiring the use of structured tools (Behrens et al., 2018; Calkins and Brush, 2016) to frame the discussion and documentation of these choices. The entire interdisciplinary team, especially direct care staff, should be engaged with the resident in developing a care plan that reflects the resident's preferences for balancing autonomy and safety.

The entire interdisciplinary team, especially direct care staff, should be engaged with the resident in developing a care plan that reflects the resident's preferences for balancing autonomy and safety.

To encourage facilities to embrace negotiating choices, guidelines must be established for survey teams to acknowledge and support the delicate balance between risk mitigation and respect for autonomy. In addition, examining the processes and outcomes of these shared decision-making approaches will better estimate actual risks involved while honoring resident and family preferences. For example, there is growing evidence that deprescribing medications with limited benefits does not increase the risks of hospitalizations, emergency department visits, or mortality (Niznik et al., 2022). One need only reflect on the paradigm-shifting research documenting the negative outcomes of widespread restraint use (restraints were once applied to "protect" patients) to cast doubt on the wisdom of some common practices employed to keep residents safe (Sze et al., 2012). A more recent example of practices designed to promote safety is COVID-19 restrictions around visitation, which were associated with increased stress, social isolation, and lower evaluations of the quality of care (Ersek et al., 2021; The National Consumer Voice for Quality Long-Term Care, 2021). Remarkably, these restrictions swept aside resident rights, codified in the Omnibus Budget Reconcilation Act (OBRA) 1987 nursing home reform legislation (National Citizens' Coalition for Nursing Home Reform, 1999). Prior to the COVID-19 restrictions, residents would have made their own decisions regarding visitation and would have been encouraged by staff and leaders to exercise their rights to decision-making.

TESTING EXISTING AND EMERGENT MODELS OF CARE

Nursing homes are required by law to provide a broad array of services to meet the needs of all short-stay patients and long-stay residents. These recipients of care are racially, ethnically, and socioeconomically diverse and experience a wide range of health conditions. The

Committee identified particular deficits in specific services, including behavioral health and psychosocial care, palliative and end-of-life care, and hearing, vision, and oral health care. The most effective models for delivering care that minimizes health disparities and achieves optimal outcomes, especially for persons with mental health and behavioral challenges and those at the end of life, are unknown. Thus, the Committee called for rigorous research and demonstration projects to test and refine innovative care delivery models.

This call is not unprecedented, and previous efforts have shown promise. For example, in 2012, the Centers for Medicare and Medicaid Innovation funded the Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents, which evaluated the effectiveness of seven programs using evidence-based clinical and educational interventions. An evaluation of Phase 1 of all seven programs together demonstrated significant reductions in hospitalizations. Programs involving consistent, hands-on clinical care for residents, provided by full-time project nurses, showed the greatest effects (Centers for Medicare and Medicaid Services, 2017). In contrast, evaluations of Phase 2 of the Initiative, which compared clinical interventions plus payment reform to payment reform alone, showed mixed or negative results (Centers for Medicare and Medicaid Services, 2021). Thus, while showing some promise, these findings also offer insight into challenges confronting researchers and suggest possible future investigations. First, researchers and other stakeholders, including residents and family members, should work with funders to write and disseminate calls for proposals that target clinical research questions that are of high importance to residents, families, regulators, and payors. Second, broad stakeholder groups should form partnerships to facilitate clinical research in nursing homes (Baier et al., 2021). Third, study designs must incorporate principles and methods used in implementation science (Ersek and Carpenter, 2013). This scientific approach promotes the adoption of evidence-based models of care (Bauer and Kirchner, 2020; Lam et al., 2018). Finally, the National Institutes of Health and other funders should consider establishing a specific focus area on long-term care research that encompasses institutional (e.g., nursing home) and community-based models of care. As with Phase 2 of the Initiative, models may incorporate tests of the effectiveness of alternative payment models or waivers of existing policies.

QUALITY MEASUREMENT

Goal 6 is to "expand and enhance quality measurement and continuous quality improvement" (p. 19). Commitment to ensuring effective, high-quality care delivery is operationalized through the measurement of outcomes that are important to residents and their families. Quality measures can be used for accountability, payment, and quality improvement. Currently, CMS requires the collection and reporting of several quality indicators as part of the Care Compare website. However, unlike many health-care settings, there is no universal measure of a key domain of quality care: resident and family satisfaction and experience. While a handful of states require surveys of resident and family experiences with nursing home care (Minnesota Department of Health and Minnesota Department of Human Services, 2021; Straker et al., 2016; You et al., 2016), CMS does not require this information be collected to participate in the Medicare and Medicaid programs. The Committee saw this absence as a major shortcoming and, thus, called for the inclusion of resident and family experiences of care measures in Care Compare, specifically suggesting implementation and further testing of the Consumer Assessment of Healthcare Providers and Systems surveys. This choice was based on the extensive state-of-the-art development and initial testing of both resident and family Consumer Assessment of Healthcare Providers and Systems–Nursing Home surveys (Agency for Healthcare Research and Quality, 2018).

It can be anticipated that there will be resistance to implementation of this recommendation. Specific objections likely will focus on issues such as the additional costs of administering the survey, especially the need to conduct in-person resident interviews, and residents' ability to provide valid and reliable responses due to cognitive impairments. Strategies to overcome these and other sources of resistance will be needed for successful implementation in nursing homes.

QUALITY IMPROVEMENT

An important, often-overlooked strategy is to use the power of quality improvement methods to facilitate adoption of evidence-based practices. There is some evidence of the effectiveness of quality improvement methods at the facility level to improve resident outcomes (Knudsen et al., 2019; Rantz et al., 2013). When direct care staff are taught how to use quality improvement methods and measure the effectiveness of implementing evidence-based practices, they are empowered by their efforts and strive to continue those best practices and improve others (Knudsen et al., 2019).

There are technical assistance programs designed to help health-care organizations learn about how to use quality improvement methods to improve quality of care;

for nursing homes, these include the traditional technical assistance programs delivered by quality improvement organizations (QIOs). However, the evidence for effectiveness of QIOs has found small or uncertain positive impacts on care in nursing homes (Shaw-Taylor, 2014), and several Government Accountability Office (GAO) reports strongly question the effectiveness, as well as the cost-effectiveness, of the national QIO program (Office of the Inspector General, 2015).

Some targeted programs, such as National Partnership to Improve Dementia Care in Nursing Homes (Centers for Medicare and Medicaid Services, 2017), as well as state-initiated quality improvement programs in Missouri and Minnesota, have shown significant, positive outcomes (Arling et al., 2013; Arling et al., 2014; Rantz et al., 2003; Rantz et al., 2009), although these targeted, state-specific programs have not been tested in multiple states. At the state level, there is "evidence that state and local programs build a trusting relationship between the nursing home staff and people offering the technical assistance, modifying the assistance to best fit current needs and skills of each nursing home, and making sure the scientific content is the most up-to-date and accurate" (National Academies of Sciences, Engineering, and Medicine, 2022, pp. 124–125). Thus, the Committee made recommendations to strengthen and encourage the implementation of and effectiveness evaluations for state- or local-level quality improvement technical assistance programs (National Academies of Sciences, Engineering, and Medicine, 2022, pp. 530–535).

The goal of such quality improvement technical assistance, developed at either the state or local level, is to effectively assist nursing homes in implementing quality improvement activities that use the most up-to-date, evidence-based guidance for care practices, as well as tailoring quality improvement methods to best meet the needs of the individual nursing home's staff. With ongoing relationships with experts in quality improvement methods, nursing home staff learn to set up and follow through with continuous measurement of care practices. By taking steps for corrective action to improve those practices, providing feedback toward achieving high standards of care delivery, and using a cyclical approach, they continuously improve care and involve staff in the learning and measurement process.

IMPLICATIONS FOR GERONTOLOGICAL LEADERS, CLINICIANS, AND POLICY-MAKERS

The National Academies' Report on the Quality of Nursing Home Care proposes sweeping changes to the way the United States funds, delivers, evaluates, and regulates nursing home care and underscores that there is an urgent need to take immediate steps to improve care. Gerontological leaders, clinicians, and policy-makers, as well as interdisciplinary organizations such as the Gerontological Society of America and the American Geriatrics Society, are well poised to engage in discussions about the actions needed to meet the goals of the Report. The organizations should initiate discussions about next steps to realize the vision of the Report. Such activities include developing and disseminating policy briefs, position papers, and other products that support the Report's recommendations and featuring policy panels to engage members and attract public attention to the immediacy of actions. The issue, for which this article is included, is an excellent start. Special interest groups with focuses that are relevant to nursing homes (e.g., Aging Workforce, Systems Research in Long-Term Care) can promote these efforts. Organization members should work with federal and state agencies and private foundations to develop and disseminate calls for proposals to support high-quality, high-impact research and demonstration projects that can improve outcomes for residents, families, and staff. In addition, members—particularly those with clinical and/or administrative experience in nursing homes—can help identify and communicate about facilities and programs that "are getting things right." Bringing attention to these successes—particularly in media outlets—can help change the public perception that nursing homes are uniformly deficient. In addition, these exemplars of good care should be studied and replicated. Finally, members should keep public pressure on federal and state governments, CMS, and other federal and state agencies to implement the recommendations in the Report.

> Finally, members of the Society and its membership should keep public pressure on federal and state governments, CMS, and other federal and state agencies to implement the recommendations in the Report.

ACKNOWLEDGMENTS

This supplement is sponsored by the John A. Hartford Foundation. The authors wish to thank the NASEM staff, who helped facilitate and prepare the consensus report on the Quality of Care in Nursing Homes.

FUNDING INFORMATION

None declared.

CONFLICT OF INTEREST STATEMENT

Both authors served as members of the National Academies Committee on the Quality of Care in Nursing Homes. Dr. Ersek is an employee of the Department of Veterans Affairs. The views expressed in this article are those of the authors and do not necessarily represent the views of the Department of Veterans Affairs or the U.S. Government.

ORCID

Mary Ersek https://orcid.org/0000-0002-0520-311X

REFERENCES

Agency for Healthcare Research and Quality. (2018). About CAHPS. Last reviewed July, 2022, Accessed November 29, 2022. https://www.ahrq.gov/cahps/about-cahps/index.html

Arling, G., Cooke, V., Lewis, T., Perkins, A., Grabowski, D. C., & Abrahamson, K. (2013). Minnesota's provider-initiated approach yields care quality gains at participating nursing homes. *Health Affairs*, 32(9), 1631–1638. doi:https://doi.org/10.1377/hlthaff.2013.0294

Arling, P. A., Abrahamson, K., Miech, E. J., Inui, T. S., & Arling, G. (2014). Communication and effectiveness in a US nursing home quality-improvement collaborative. *Nursing & Health Sciences*, 16(3), 291–297. doi:https://doi.org/10.1111/nhs.12098

Baier, R. R., McCreedy, E., Uth, R., Gifford, D. R., & Wetle, T. (2021). Nursing home leaders' perceptions of a research partnership. *Aging Clinical and Experimental Research*, 33(12), 3371–3377. doi:https://doi.org/10.1007/s40520-021-01847-6

Bauer, M. S., & Kirchner, J. (2020). Implementation science: What is it and why should I care? *Psychiatry Research*, 283, 112376. doi:https://doi.org/10.1016/j.psychres.2019.04.025

Behrens, L., Van Haitsma, K., Brush, J., Boltz, M., Volpe, D., & Kolanowski, A. M. (2018). Negotiating risky preferences in nursing homes: A case study of the Rothschild Person-Centered Care Planning Approach. *Journal of Gerontological Nursing*, 44(8), 11–17. doi:https://doi.org/10.3928/00989134-20171206-02

Calkins, M., & Brush, J. (2016). Honoring individual choice in long-term residential communities when it involves risk: A person-centered approach. *Journal of Gerontological Nursing*, 42(8), 12–17. doi:https://doi.org/10.3928/00989134-20160531-01

Calkins, M., Schoeneman, K., Brush, J., & Mayer, R. (2015). *A process for care planning for resident choice*. Hulda B. & Maurice L. Rothschild Foundation. Updated October 6, 2022, Accessed November 29, 2022. https://www.pioneernetwork.net/wp-content/uploads/2016/10/Process-for-Care-Planning-for-Resident-Choice-.pdf

Centers for Medicare & Medicaid Services. (2017, October). *Data show national partnership to improve dementia care achieves goals to reduce unnecessary antipsychotic medications in nursing homes*. Centers for Medicare and Medicaid Services. Accessed November 29, 2022. https://www.cms.gov/newsroom/fact-sheets/data-show-national-partnership-improve-dementia-care-achieves-goals-reduce-unnecessary-antipsychotic

Centers for Medicare & Medicaid Services. (2021, March). Evaluation of the initiative to reduce avoidable hospitalizations among nursing facility residents. Accessed November 29, 2022. https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/InitiativetoReduceAvoidableHospitalizations/Evaluation-

Ersek, M., & Carpenter, J. G. (2013). Geriatric palliative care in long-term care settings with a focus on nursing homes. *Journal of Palliative Medicine*, 16(10), 1180–1187. doi:https://doi.org/10.1089/jpm.2013.9474

Ersek, M., Smith, D., Griffin, H., Carpenter, J. G., Feder, S. L., Shreve, S. T., Nelson, F. X., Kinder, D., Thorpe, J. M., & Kutney-Lee, A. (2021). End-of-life care in the time of COVID-19: Communication matters more than ever. *Journal of Pain and Symptom Management*, 62(2), 213–222.e2. doi:https://doi.org/10.1016/j.jpainsymman.2020.12.024

Knudsen, S. V., Laursen, H. V. B., Johnsen, S. P., Bartels, P. D., Ehlers, L. H., & Mainz, J. (2019). Can quality improvement improve the quality of care? A systematic review of reported effects and methodological rigor in plan-do-study-act projects. *BMC Health Services Research*, 19(1), 683. doi:https://doi.org/10.1186/s12913-019-4482-6

Koren, M. J. (2010). Person-centered care for nursing home residents: The culture-change movement. *Health Affairs*, 29(2), 312–317. doi:https://doi.org/10.1377/hlthaff.2009.0966

Lam, H. R., Chow, S., Taylor, K., Chow, R., Lam, H., Bonin, K., Rowbottom, L., & Herrmann, N. (2018). Challenges of conducting research in long-term care facilities: A systematic review. *BMC Geriatrics*, 18(1), 242. doi:https://doi.org/10.1186/s12877-018-0934-9

Minnesota Department of Health and Minnesota Department of Human Services. (2021). Minnesota nursing home report card technical user guide. Updated October 6, 2022, Accessed November 29, 2022. https://nhreportcard.dhs.mn.gov/technicaluserguide.pdf

National Academies of Sciences, Engineering, and Medicine. (2022). *The national imperative to improve nursing home quality: Honoring our commitment to residents, families, and staff*. The National Academies Press. doi:https://doi.org/10.17226/26526

National Citizens' Coalition for Nursing Home Reform. (1999). Residents' rights in nursing homes consumer information sheet. Accessed November 29, 2022. https://www.justice4all.org/wp-content/uploads/2013/05/Fact-Sheet-on-Residents-Rights.pdf

The National Consumer Voice for Quality Long-Term Care. (2021, June). Limitations on visitation and daily activities negatively impact the lives of nursing home residents: A survey of residents. Accessed November 29, 2022. https://theconsumervoice.org/uploads/files/issues/Current_Visitation_and_Quality_of_Life_for_Residents.pdf

National Long-Term Care Ombudsman Resource Center. (2016). Residents' rights. Accessed November 29, 2022. https://ltcombudsman.org/uploads/files/support/Module-2.pdf

Niznik, J. D., Zhao, X., Slieanu, F., Mor, M. K., Aspinall, S. L., Gellad, W. F., Ersek, M., Hickson, R. P., Springer, S. P., Schleiden, L. J., Hanlon, J. T., Thorpe, J. M., & Thorpe, C. T. (2022). Effect of deintensifying diabetes medications on negative events in older veteran nursing home residents. *Diabetes Care*, 45(7), 1558–1567. doi:https://doi.org/10.2337/dc21-2116

Office of the Inspector General. (2015, Januray). Quality improvement organizations provide support to more than half of hospital but overlap with other programs. Accessed November 29, 2022. https://oig.hhs.gov/oei/reports/oei-01-12-00650.pdf

Rantz, M. J., Cheshire, D., Flesner, M., Petroski, G. F., Hicks, L., Alexander, G., Aud, M. A., Siem, C., Nguyen, K., Boland, C., & Thomas, S. (2009). Helping nursing homes "at risk" for quality problems: A statewide evaluation. *Geriatric Nursing*, 30(4), 238–249. doi:https://doi.org/10.1016/j.gerinurse.2008.09.003

Rantz, M. J., Vogelsmeier, A., Manion, P., Minner, D., Markway, B., Conn, V., Aud, M. A., & Mehr, D. R. (2003). Statewide strategy to improve quality of care in nursing facilities. *The Gerontologist*, 43(2), 248–258. doi:https://doi.org/10.1093/geront/43.2.248

Rantz, M. J., Zwygart-Stauffacher, M., Flesner, M., Hicks, L., Mehr, D., Russell, T., & Minner, D. (2013). The influence of teams to sustain quality improvement in nursing homes that "need improvement" *Journal of the American Medical Directors Association*, 14(1), 48–52. doi:https://doi.org/10.1016/j.jamda.2012.09.008

Shaw-Taylor, Y. (2014). Making quality improvement programs more effective. *International Journal of Health Care Quality Assurance*, 27(4), 264–270. doi:https://doi.org/10.1108/ijhcqa-02-2013-0017

Straker, J., McGrew, K., Dibert, J., Burch, C., & Raymore, A. (2016, April). Ohio nursing home and residential care facility satisfaction: Survey testing and development for residents and families. Accessed November 29, 2022. https://sc.lib.miamioh.edu/xmlui/bitstream/handle/2374.MIA/5925/Ohio%27s%20Nursing%20Homes%20and%20Residential%20Care%20Family%20Satisfaction.pdf

Sze, T. W., Leng, C. Y., & Lin, S. K. (2012). The effectiveness of physical restraints in reducing falls among adults in acute care hospitals and nursing homes: a systematic review. *JBI Library of Systematic Reviews*, 10(5), 307–351. doi:https://doi.org/10.11124/jbisrir-2012-4

You, K., Li, Y., Intrator, O., Stevenson, D., Hirth, R., Grabowski, D., & Banaszak-Holl, J. (2016). Do nursing home chain size and proprietary status affect experiences with care? *Medical Care*, 54(3), 229–234. doi:https://doi.org/10.1097/MLR.0000000000000479

How to cite this article: Rantz M, Ersek M. Care Delivery, Quality Measurement, and Quality Improvement in Nursing Homes: Issues and Recommendations from the National Academies' Report on the Quality of Care in Nursing Homes. *J Am Geriatr Soc*. 2023;71(2):329-334. doi:10.1111/jgs.18275